

A PRELIMINARY LIST OF THE SPIDERS (ARANEAE) OF DELAWARE^{1, 2}

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ABSTRACT: This first published list of Delaware spiders records 199 species in 26 families. Sources of records are: (1) Collections by numerous Delaware entomologists beginning about 1935 identified and recorded by T. A. Parker; (2) Museum collections of the Academy of Natural Sciences in Philadelphia; and (3) Ecological studies of spiders in the University of Delaware Experimental woodlot. Collecting data, including locality and month, are given for all species, and a map is provided showing the collecting localities.

DESCRIPTORS: spiders, Araneae, Delaware, Arachnida, Taxonomic lists.

Published records of spiders from Delaware are scarce, although Muma (1943, 1944, 1945) has recorded 384 species from the Delaware/Maryland/Virginia peninsula. T. A. Parker (1965) reported in a senior thesis on 130 species that he and others had collected in Delaware. The material is preserved in the Department of Entomology and Applied Ecology Museum, and includes specimens collected from about 1935 by several Delaware entomologists. Parker's work is the only list of Delaware spiders to date.

I have examined the spider collections of the Philadelphia Academy of Natural Sciences, but most of the additions to Parker's list are from an ecological study I made in 1970 of spiders in the University of Delaware experimental woodlot. Others are from miscellaneous collecting in New Castle County. My collecting was by sweep net, hand sorting of litter and debris, or by pitfall trapping.

In the list of species that follows, localities are indicated by numerals which correspond to points on a map of the state (Fig. 1). These are further characterized in a list of localities. Also in the list of species, the month (s) in which each species was collected is given, and the sources of records are designated by capital letters as follows:

TAP — "Spiders of Delaware"; senior thesis of T. A. Parker (1965)
ANSP — Academy of Natural Sciences of Philadelphia.
GU — the author

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LIST OF LOCALITIES

New Castle County

1. White Clay Creek, north of Newark. Piedmont forest and stream valley.
2. Newark. Urban and suburban area.
3. University woodlot. Mature secondary growth forest.
4. Iron Hill, south of Newark. Undisturbed forest, mature secondary growth forest, and old field.
5. Pike Creek Valley, northeast of Newark. Piedmont forest and stream valley.
6. Thompson's Bridge, on Brandywine River north of Wilmington. Flood plain forest, marsh and mature secondary growth forest.
7. Talleyville. Mature secondary growth forest and old field.
8. Wilmington. Urban and suburban area.
9. Coochs Bridge. Stream bank and old field.
10. Glasgow. Agricultural land and old field.
11. Summit Bridge. Canal spoil bank and old field.
12. Delaware City. Oil refinery "tank farm" and marsh landfill.
13. Middletown. Agricultural land.
14. Blackbird. Pond margin.

Kent County

15. Woodland Beach. Coastal salt marsh.
16. Bombay Hook National Wildlife Refuge. Coastal salt marsh.
17. Leipsic. Coastal salt marsh.
18. Cheswold. Agricultural land.
19. Dover. Agricultural land.
20. Camden. Agricultural land.
21. Wyoming. Agricultural land.
22. Andrews ville. Agricultural land.

Sussex County

23. Greenwood. Agricultural land.
24. Bridgevill. Agricultural land.
25. Milford. Coastal salt marsh.
26. Lincoln. Agricultural land.
27. Redden State Forest. Loblolly pine forest.
28. Ellendale State Forest. Swamp forest.
29. Selbyville. Cypress swamp.
30. Cape Henlopen-Lewes. Coastal beach and sand dunes.
31. Dewey Beach. Coastal beach and sand dunes.

LIST OF SPECIES

Orthognatha

Family Atypidae

Atypus niger (Hentz) 27, 28. GU April and May

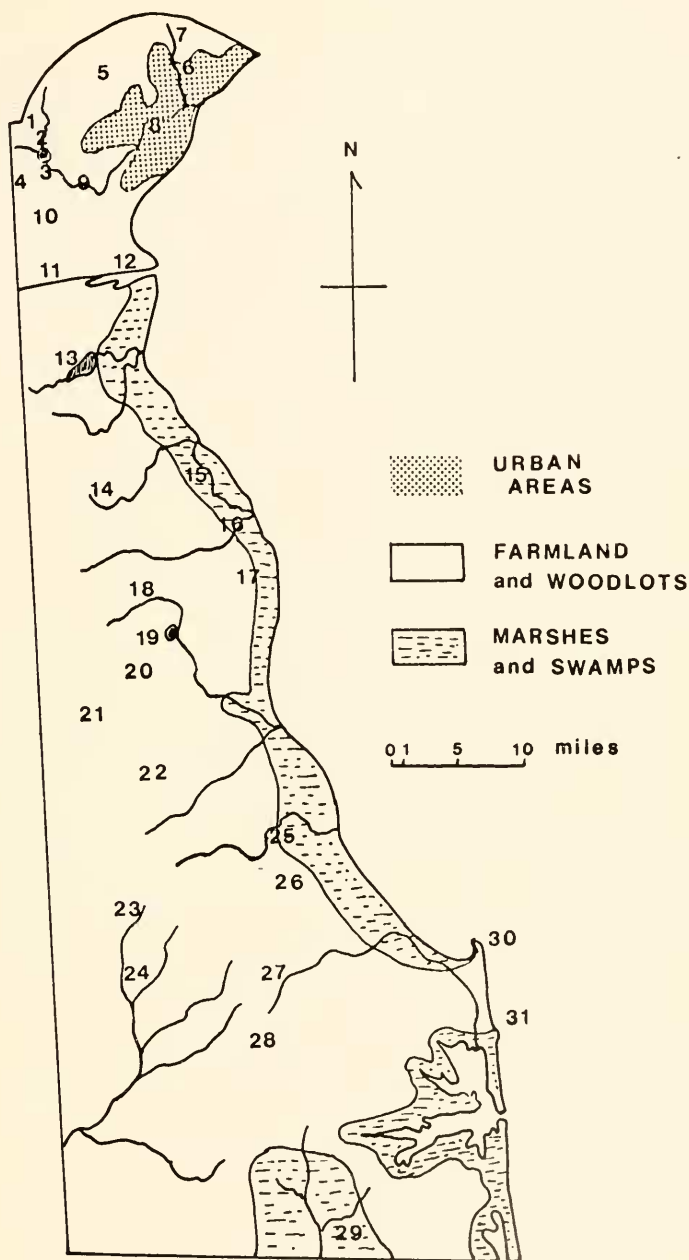


Figure 1. Map of Delaware, showing collecting localities.

Labidiognatha

Family Dysderidae

Dysdera crocata C.L. Koch 2. TAP August

Family Segestriidae

Ariadna bicolor (Hentz) 16. TAP September

Family Scytodidae

Scytodes thoracica (Latreille) 2. GU September and October

Family Pholcidae

Pholcus phalangioides (Fuesslin) 2, 11. GU, TAP August and November

Physocyclus globosus (Taczanowski) 2, 11, 25. TAP June and August

Spermophora meridionalis (Hentz) 19. TAP July

Family Theridiidae

Achaearanea tepidariorum (C.L. Koch) all stations. TAP, GU. June through September.

Conopistha trigona (Hentz) 27. TAP. June.

Crustulina altera Gertsch and Archer 3. GU. June

Dipoena nigra (Emerton) 5. TAP. August.

Enoplognatha marmorata (Hentz) 15. TAP. June.

Euryopis argentea Emerton 3. GU. June and July

Euryopis funebris (Hentz) 3, 9. GU, TAP. June.

Latrodectus mactans (Fabricius) 2, 12, 18, 19. TAP, GU. June, July, August and October.

Paidisca marxi (Crosby) 3. GU. July.

Pholcomma hirsutum (Emerton) 3, 16. GU, TAP. August.

Steatoda americana (Emerton) 3. GU. June and July

Steatoda albomaculatus (DeGeer) 2. GU. July

Steatoda borealis (Hentz) 2, 16, 24, 15. TAP, GU. June, August and September.

Steatoda grossa (C.L. Koch) 2, 3, 6, 7. GU, ANSP. June, July and August.

Steatoda triangulosa (Walckenaer) 2, 6, 7. GU, ANSP, TAP. May, June and July.

Theridion differens (Emerton) 9. TAP. June.

Theridion frondeum (Hentz) 20. TAP. June.

Theridion lyricum (Walckenaer) 3. GU. June.

Theridion murarium (Emerton) 9. TAP. June.

Family Linyphiidae

Centromerus cornupalpis (O.P. Chamberlin), 3 GU. July and August.

Drapetisca alteranda (Chamberlin) 1. TAP. August.

Frontinella communis (Hentz) 1, 2, 3, 5, 6, 16. TAP, GU, ANSP. July through September.

Lepthyphantes nebulosa (Sundevall) 2, 3. TAP, GU. June, July and August.

Lepthyphantes zebra. (Emerton) 3. GU. July.

Linyphia clathrata (Sundevall) 1. TAP. August.

Linyphia maculata (Emerton) 3. GU. July August.

Microlinphia pusilla (Sundevall) 2, 3. TAP. GU. June.

Microneta viaria (Blackwall) 20. TAP. June.

Meioneta micaria (Emerton) 1, 20, 29. TAP. June and July.

Meioneta simplex (Emerton) 3. GU. August.

Pityohyphantes costatus (Hentz) 3. GU. September.

Prolinyphia marginata (C.L. Koch) 3. GU. August.

Tennesseeum formicum (Emerton) 3. GU. July.

Family **Micryphantidae**

Members of this family were not determined beyond the family level.
Twenty-five specimens were taken in the state.

Family **Araneidae**

- Acasesia hamata* (Hentz) 3, 15. GU, TAP. July and August.
Acanthepeira stellata (Walckenaer) 2, 23, 24. TAP, GU. July and August.
Araneus cornutus (Clerck) 3. GU. August.
Araneus marmoreus (Clerck) 1, 2. TAP, GU. July and August.
Araniella displicata (Hentz) 3, 4. GU. August and September.
Argiope aurantia (Lucas) 2, 7, 8, 10. TAP, ANSP. August and September.
Argiope trifasciata (Forsk.) 2, 9. TAP, ANSP. September.
Cyclosa conica (Pallas) 3, 4. GU. July and August.
Cyclosa turbinata (Walckenaer) 17. TAP. August.
Cyphepeira cornuta (Clerck) = (*foliata* Fourcroy) 1, 16. TAP. August and September.
Eustala anastera (Walckenaer) 15, 17, 23. TAP. July and August.
Eustala triflex (Walckenaer) 1, 2. TAP. August.
Mangora gibberosa (Hentz) 5, 6, 9, 15, 17. TAP. June, July and August.
Mangora maculata. (Keyserling) 1, 19. TAP. July and August.
Mangora ornata (Walckenaer) 3. GU. July and August.
Mastophora bisaccata (Emerton) 8. TAP. October.
Mecynogea lemniscata (Walckenaer) 16, 19. TAP. July and August.
Meta menardii (Latreille) 1. TAP. August.
Metepeira labyrinthica (Hentz) 2, 3. TAP, GU. June, August and September.
Micrathena gracilis (Walckenaer) 2, 3, 5, 19, 22, 26. TAP, GU. July and August.
Micrathena sagittata (Walckenaer) 3, 17, 21, 27. TAP, GU. June, July and August.
Neoscona arabesca (Walckenaer) 2, 3, 16, 17, 21. TAP, GU. August and September.
Neoscona benjamina (Walckenaer) 1, 2. GU. July and August.
Neoscona pratensis (Hentz) 16. TAP. August.
Neoscona sacra (Walckenaer) 1, 2, 5. TAP. June and August.
Neoscona frivittata (Keyserling) 12. TAP. August.
Singa pratensis (Emerton) 15. TAP. September.
Verrucosa arenata (Walckenaer) 3, 14, 21. GU, TAP. June, July and August.

Family **Tetragnathidae**

- Tetragnatha elongata* (Walckenaer) 4, 9, 11, 15. GU, TAP. June, July and August.
Tetragnatha laboriosa (Hentz) 4, 9, 15, 16, 17, 19, 23. TAP, GU. June, July and August.
Tetragnatha pallescens F.O.P. Cambridge. 15. TAP. August.
Tetragnatha seneca (Seeley) 15. TAP. August.
Tetragnatha straminea (Emerton) 9, 11. TAP. June and August.
Tetragnatha versicolor (Walckenaer) 15, 16. TAP. July, August and September.
Leucauge venusta (Walckenaer) 3. GU. July and August.

Family **Mimetidae**

- Ero leonina* (Hentz) 3. GU. July.
Mimetus epeiroides (Emerton) 25. TAP. June.
Mimetus notis (Chamberlin) 2. TAP. June.

Family **Agelenidae**

- Agelenopsis emertoni* (Chamberlin and Ivie) 5. TAP. July.
Agelenopsis naevia (Walckenaer) 1. TAP. August.
Agelenopsis pennsylvanica (C.L. Koch) 3, 5, 6, 7, 9, 16. TAP, GU. July, August, September, and October.

Cicurina brevis (Emerton) 25. TAP. June.

Cicurina robusta (Simon) 3. GU. June.

Coras medicinalis (Hentz) 2, 3, 6, 7. GU, TAP, ANSP. May, June and August.

Tegenaria domestica (Clerck) 2. GU. September.

Family Hahniidae

Antistea brunnea (Emerton) 3. GU. June

Family Pisauridae

Dolomedes scriptus (Hentz) 2, 5. TAP. July and August.

Dolomedes tenebrosus (Hentz) 3, 5, 7. TAP, GU. August, September and February.

Pisaurina mira (Walckenaer) 3, 5, 7. TAP, GU. June, July and August.

Family Lycosidae

Arctosa virgo (Chamberlin) 2, 3. TAP, GU. June.

Geolycosa pikei (Marx) 30, 31. GU. May and June.

Lycosa aspersa (Hentz) 8. TAP. July.

Lycosa avara (Keyserling) 3. GU. June.

Lycosa avida (Walckenaer) 6. TAP, ANSP. May and July.

Lycosa carolinensis (Walckenaer) 3. GU. June.

Lycosa gulosa (Walckenaer) 3. GU. June.

Lycosa helluo (Walckenaer) 2, 3, 6, 15, 17. GU, TAP. June, July and August.

Lycosa modesta (Keyserling) 16. TAP. August.

Lycosa rabida (Walckenaer) 2, 17. TAP, GU, ANSP. September and October.

Pardosa distincta (Blackwall) 15. TAP. September.

Pardosa floridana (Banks) 15, 16. TAP. June, August and September.

Pardosa lapidicina (Emerton) 3. GU. June.

Pardosa milvina (Hentz) 3. GU. June.

Pardosa saxatilis (Hentz) 3. GU. June.

Pirata arenicola (Emerton) 3. GU. July and August.

Pirata insularius (Emerton) 1, 3, 6, 10, 16. GU, TAP. June, August and February.

Pirata marxi (Stone) 3. GU. June.

Pirata minutus (Emerton) 1, 3. TAP, GU. July and August.

Schizocosa bilineata (Emerton) 6. ANSP. June.

Schizocosa crassipes (Walckenaer) 2, 3, 6, 27. TAP, GU, ANSP. June.

Schizocosa ocreata (Hentz) 3, 6. GU, ANSP. August.

Trabea aurantica (Emerton) 5. TAP. June.

Family Oxyopidae

Oxyopes salticus (Hentz) 2, 5, 9, 15, 19, 21, 25. TAP. June through September.

Family Gnaphosidae

Cesonia bilineata (Hentz) 15. TAP. September.

Drassodes neglectus (Keyserling) 3. GU. August.

Drassyllus virginianus (Chamberlin) 3. GU. June.

Gnaphosa fontinalis (Keyserling) 3. GU. August.

Herpyllus ecclesiasticus (Hentz) 3, 10, 16. GU, TAP. June, September and February.

Litophyllus rupicolens (Chamberlin) 3. GU. June.

Orodassus sp. 3. GU. June.

Sergiolus capulatus (Walckenaer) 3. GU. July.

Sergiolus famulus (Chamberlin) 15. TAP. August.

Sergiolus variegatus (Hentz) 3. GU. August.

Family Clubionidae

Agroeca pratensis (Emerton) 3. GU. July.

- Agroeca minuta* (Banks) 3. GU. July.
Castaneira cingulata (C.L. Koch) 3. GU. July and August.
Castaneira longipalpus (Hentz) 3, 27. GU, TAP. June and July.
Castaneira variata (Gertsch) 2. TAP. July.
Chiracanthium inclusum (Hentz) 2, 5. GU, TAP. June, July and September.
Chiracanthium mildei (C.L. Koch) 2, 8. GU. September.
Clubiona kastoni (Gertsch) 3. GU. July.
Clubiona tibialis (Emerton) 9. TAP. June.
Clubionoides excepta (C.L. Koch) 2. TAP. June.
Phrurolithus pugnatus (Emerton) 1. TAP. July.
Phrurotimpus alarius (Hentz) 3. GU. June and July.
Phrurotimpus borealis (Emerton) 3. GU. July and August.
Trachelas tranquillus (Hentz) 2. GU, TAP. August, October and November.

Family Anyphaenidae

- Anyphaena celer* (Hentz) 3. GU. July.
Anyphaena fraterna (Banks) 3. GU. August.
Ayscha gracilis (Hentz) 3, 15, 24, 25. GU, TAP. July, August and September.
Wulfia saltabunda (Hentz) 5, 6. TAP. July and August.

Family Thomisidae

- Formocipes aleatorius* (Hentz) 4, 5, 6, 15. GU, TAP. July through September.
Minusena vatia (Clerck) 4, 15. GU. TAP. September.
Misumenops asperatus (Hentz) 6, 15. TAP. July and September.
Misumenops celer (Hentz) 2. TAP. August.
Misumenops oblongus (Keyserling) 15. TAP. June.
Ozyptila americana (Banks) 3. GU. July.
Thanatus formicinus (Clerck) 2, 3. GU. September.
Tibellus duttoni (Hentz) 17. TAP. June.
Tibellus oblongus (Walckenaer) 9, 14. TAP. August.
Tmarus angulatus (Walckenaer) 6. TAP. June.
Xysticus elegans (Keyserling) 2. TAP. October.
Xysticus ferox (Hentz) 25. TAP. June.
Xysticus fraternus (Banks) 2, 3. TAP, GU. June.
Xysticus funestus (Keyserling) 25. TAP. October.
Xysticus gulosis (Keyserling) 17. TAP. June.
Xysticus luctans (C.L. Koch) 5. TAP. June.
Xysticus punctatus (Keyserling) 18. TAP. July.
Xysticus transversatus (Walckenaer) 3. GU. June.
Xysticus triguttatus (Keyserling) 2, 9, 31. TAP. June, July and August.

Family Philodromidae

- Philodromus imbecillus* (Keyserling) 5, 6. TAP. June.
Philodromus marxii (Keyserling) 9, 27. TAP. June.
Philodromus placidus (Banks) 23. TAP. June.
Philodromus rufus (Walckenaer) 2, 5, 9, 15. TAP. June and September.
Philodromus vulgaris (Hentz) 29. TAP. July.
Philodromus keyserlingi (Marks) 5. TAP. June.

Family Saltcidae

- Agassa cyanea* (Hentz) 9. TAP. June.
Eris marginata (Walckenaer) 2, 3, 16, 17. GU, TAP. June, July and August.
Habrocestum pulex (Hentz) 3, 15. GU, TAP. August and September.
Hentzia mitrata (Hentz) 19. TAP. July.
Hentzia palmarum (Hentz) 2, 15. TAP. January, June and September.

Icius elegans (Hentz) 5. TAP. June.

Maevia vittata (Hentz) 3. GU. August.

Marpissa lineata (C.L. Koch) 5. TAP. June.

Marpissa pikei (Peckham) 15, 17. TAP. April, August and September.

Metacyrba undata (De Geer) 9. TAP. July.

Metaphidippus exiguus (Banks) 2. TAP. July.

Metaphidippus galathea (Walckenaer) 5, 9, 23, 24. TAP.

Metaphidippus protervus (Walckenaer) 2, 4, 5, 6, TAP, GU. June, July and August.

Phiddipus audax (Hentz) 1, 2, 3, 4, 12, 13, 15, 16, 19, 21, 23, 24, 25. TAP, GU, ANSP. June through September.

Phiddipus clarus (Keyserling) 5, 21. TAP. June, July and August.

Phiddipus princeps (Peckham) 5. TAP. July.

Phiddipus whitmannii (Peckham) 2, 5, 19, 29. June, July and October.

Salticus scenicus (Linnaeus) 2, 25. GU, TAP. June and January.

Sarinda hentzi (Banks) 2. TAP. July.

Talavera minuta (Banks) 2. TAP. July.

Thiodina puerpera (Hentz) 3. GU. August.

Zygoballus bennetti (Peckham) 5. TAP. June.

Family Oecobiidae

Oecobius annulipes (Lucas) 2. TAP, GU. December and January

Family Dictynidae

Dictyna annulipes (Blackwall) 6. TAP. June.

Dictyna foliacea (Hentz) 2, 9, TAP. June.

Dictyna minuta (Emerton) 5. TAP. June.

Dictyna sublata (Hentz) 2, 5. TAP. GU. July.

Dictyna volucripes (Keyserling) 15. TAP. June.

Family Uloboridae

Hyptiotes cavatus (Hentz) 3. GU. September.

Uloborus octonarius (Muma) 9, 25. TAP. June.

Family Amaurobiidae

Callobius bennetti (Blackwall) 3, 7. TAP, GU. February and June.

Callobius ferox (Walckenaer) 2, 3. TAP, GU. March and August.

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